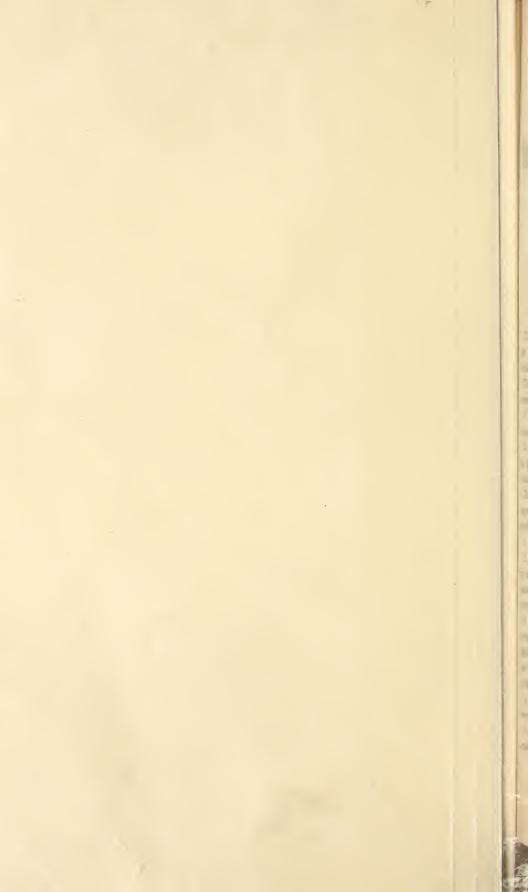
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MAINE AGRICULTURAL EXPERIMENT STATION.

BULLETIN No. 7.

SECOND SERIES.

INSPECTION OF FERTILIZERS.

W. H. JORDAN, Director.

J. M. BARTLETT, L. H. MERRILL, Chemists.

The Maine Legislature enacted at the session of 1893, a new law for the regulation of the sale and analysis of commercial fertilizers.

This change of law was sought in order to accomplish two objects:

- 1. The providing of funds that can be legally used, sufficient to pay the expenses of a proper inspection.
- 2. A provision whereby information as to the composition of the goods offered for sale can be given to the would-be purchaser at an earlier date than has heretofore been possible.

This law makes the following requirement upon manufacturers, importers or dealers who propose to sell or offer for sale their goods in the States. These briefly stated are:

- 1. Marking the bags properly.
- 2. Filing annually a certificate with the director of the Station giving the manufacturer's or dealer's name, place of business, place of manufacture, name of brand of fertilizer and the guaranteed composition of the same.
- 3. Depositing annually, unless excused by the director under certain conditions, a sample of fertilizer, with an accompanying affidavit that this sample "corresponds within reasonable limits to the fertilizer which it represents." These samples are designated in this bulletin as "manufacturers" samples."
- 4. The annual payment of an analysis fee of fifteen dollars for every brand of complete fertilizer licensed.
- 5. All brands of which thirty tons or more are not sold are exempt from the last provision.

In accordance with the foregoing requirements, sixteen companies representing fifty eight brands of fertilizers have complied with the law, and the brands mentioned below can be sold legally in the state to the extent of thirty tons or more during the year 1894.

The analyses which appear here are those made from manufacturers samples, which are deposited under affidavit that they are reasonably near in composition to the corresponding brands found in the market. There is every reason why purchasers may confidently expect the goods they buy to be fairly represented by these samples.

The figures which are given as the percentages of valuable ingredients guaranteed by the manufacturers are the minimum percentages of the guarantee. If, for instance the guarantee is 2 to 3 per cent. of nitrogen, it is evident that the dealer can not be held to have agreed to furnish more than 2 per cent., and so this percentage is taken as the actual guarantee. The figures under the head of "found" are those showing the actual composition of the samples deposited.

It will be seen that no estimated commercial valuation has been given to the various brands of goods here represented. This is due in part to the fact that the trade values for 1894 have not yet been agreed upon. If any one wishes to calculate the valuation he can do so by using the prices adopted for 1893, which are as follows:

Nitrogen,		-		-		-		17 1-2	cents.
Soluble pho	osphoric	acid,	-		-		-	6 1-2	
Reverted	66	66		-		-		6	
Insoluble	66	66	-		-		-	2	66
Potash, as	muriate,			-		-		4 1-2	6.6
Potash, as	sulphate	,	_		-		_	5 1-2	44

The commercial valuation will be accurate enough as a means of comparison if the following rule is adopted:

Multiply 17 1-2 cents by the percentage of nitrogen "found" and this product by twenty;

Multiply 6 1-2 cents by the percentage of available phosphoric acid found and the product by twenty;

Multiply 2 cents by the percentage of insoluble phosphoric acid found and the product by twenty;

Multiply 5 cents by the percentage of potash found and this product by twenty. The sum of these four final products will be the commercial valuation on the basis taken.

The valuation will be useful only as a means of determining whether one fertilizer has a selling price greater than another in proportion to some standard of valuation. Such commercial valuations do not necessarily measure the relative value for use on a particular farm.

MANUFACTURERS WHO HAVE COMPLIED WITH THE LAW FOR THE YEAR 1894.

Bowker Fertilizer Co., Boston, Mass., eight brands, manufactured at Brighton, Mass., and Elizabeth Port, N. Y.

Bradley Fertilizer Co., Boston, Mass., four brands, manufactured at No. Weymouth, Mass.

Clark's Cove Fertilizer Co., New York, N. Y., or Boston, Mass., four brands, manufactured at New York, N. Y., or Boston, Mass.

Cleveland Dryer Co., Boston, Mass., three brands, manufactured at Cleveland, O., or Boston, Mass.

Crocker Fertilizer and Chemical Co., Buffalo, N. Y., four brands, manufactured at Buffalo, N. Y.

Cumberland Bone Phosphate Co., Portland, Me., and Boston, Mass., four brands, manufactured at Boothbay Harbor, Me.

E. Frank Coe Co., New York, N. Y., six brands, manufactured at New York, N. Y.

F. S. Farrar & Co., Bangor, Me., two brands, manufactured at Bangor, Me.

Great Eastern Fertilizer Co., Rutland, Vt., four brands, manufactured at New York, N. Y.

Henry F. Tucker, Boston, Mass., one brand, manufactured at Barren Island, N. Y.

Nash Manufacturing Co., South Brewer, Me., two brands, manufactured at South Brewer, Me.

Pacific Guano Co., Boston, Mass., two brands, manufactured at Boston, Mass.

Quinnipiac Co., New York, N. Y., four brands, manufactured at Union Landing, N. J.

Sagadahoc Fertilizer Co., Bowdoinham, Me., three brands, manufactured at Bowdoinham, Me.

Standard Fertilizer Co., Boston, Mass., three brands, manufactured at Duxbury, Mass.

Williams & Clark Fertilizer Co., New York, N. Y., and Boston, Mass, four brands, manufactured at Cataract, N. J.

DISCRIPTIVE LIST OF FERTILIZERS LICENSED AND ANALYZED 1894.

		DISCRIPTIVE LIST OF PERILIZERS LICENSED AND SHALLSED 1007:	LIZERS LI	DENSED A	IND BRALIEBD	1001	
Station Xumber.		Brand		Manufacturer.	rer.	Place	Place of Business.
1080	America	Americus Phosphate Williams & Clark Fertilizer Co Boston, Mass.	Williams & C	lark Fertil	lizer Co	Boston, Mass.	
1090	America	1090 Americus Potato (and Tobacco) Manure	*	"	***	"	
1098	Ammon	Ammoniated Bone Superphosphate	E. Frank Co.	o	E. Frank Coe Co	New York, N. Y.	х.
1079	Bay Sta	1079 Bay State Fertilizer	Clark's Cove	Fertilizer	Co	New York, N.	New York, N. Y. or Boston, Mass.
1080	Bay Stat	Bay State Fertilizer, G. G	"	;	***************************************	" "	9,
1082	Bay Stat	Bay State Fertilizer, Seeding Down	;	:	;	"	3
1115	Bowken	Bowker s Ammoniated Dissolved Bone Bowker Fertilizer Co Boston, Mass.	Bowker Fert	llizer Co		Boston, Mass.	
1119	;	Bone and Potash, Square Brand	;	;		"	
1117	;	Farm and Garden Phosphate	"	;		"	
1114	3	Hill and Drill Phosphate	;	;		;	
1116	;	Potato and Vegetable Manure	;	;		;	
1118	;	Sure Crop Phosphate	:	3		3	
1070	Bradley,	Bradley's Complete Manure for Potatoes and Vegetables Bradley Fertilizer Co	Bradley Fert	ilizer Co	•	;	
1071	;	Eureka Fertilizer	:	;		"	
1069	;	Potato Manure	3	: :		;	
1068	:	X. L. Superphosphate	3	:		"	

DISCRIPTIVE LIST OF FERTILIZERS LICENSED AND ANALYZED 1894.

Station Vumber.	Brand.	Manufacturer.	Place of Business.
1093	1093 Cleveland Potato Phosphate Cleveland Dryer Co Boston, Mass.	Sleveland Dryer Co	Boston, Mass.
1094	" Seeding Down Fertilizer	,, ,,	39 99
1092	" Superphosphate		:
1102	1102 Columbian Brand Amm. Bone Superphosphate E. Frank Coe Co	3. Frank Coe Co	New York, N. Y., and Boston, Mass.
1084	Concentrated Phosphate for Potatoes Cumberland Bone Phosphate Co Portland, Me.	Sumberland Bone Phosphate Co	Portland, Me.
1107	1107 Crocker's Corn Phosphate Buffalo, N. Y.	Procker Fertilizer and Chemical Co	Buffalo, N. Y.
1109	" New Rival Amm. Superphosphate	3 9 9	99
1108	" Potato, Hop and Tobacco Phosphate	***************************************	3
1110	" Superior Rye and Oats Fertilizer	*** ,, ,, ,, ,,	•
1086	1086 Cumberland Potato Fertilizer Cumberland Bone Phosphate CoBoston, Mass., and Portland, Mc.	Jumberland Bone Phosphate Co	Boston, Mass., and Portland, Me.
1087	"Seeding Down Fertilizer	***************************************	9
1085	" Superphosphate	:	,
1122	1122 Dirigo Fertilizer Sagadahoe Fertilizer Co Bowdoinham, Me.	agadahoc Fertilizer Co	Bowdoinham, Me.
1124	1124 Extra Raw Bone		
1123	1123 Farmers' Friend Manure		
1125	1125 Farrar's Fertillzer	r. S. Farrar & Co	Bangor, Me.

DISCRIPTIVE LIST OF FERTILIZERS LICENSED AND ANALYZED 1894.

Station Number.	Brand.	Manufacturer.	Place of Business.
1126	1126 Farrar's Potato Fertilizer F. S. Farrar & Co Bangor, Me.	F. S. Farrar & Co	Bangor, Me.
1097	1097 Grass and Grain Fertilizer	E. Frank Coe Co New York, N. Y.	New York, N. Y.
1104	1104 Great Eastern General Corn Phosphate Great Eastern Fertilizer Co Butland, Vt.	Breat Eastern Fertilizer Co	Rutland, Vt.
1103	" " Fertilizer	;	3
1106	" Grass and Oats Phosphate	***************************************	"
1105	·· Potato Manure	: ;	3
6601	High Grade Amm. Bone Superphosphate E. Frank Coe Co New York, N. Y.	E. Frank Coe Co	New York, N. Y.
1111	" Potato Fertilizer	9, 9, 9	3 .3
1088	" Special Williams & Chark Fertilizer Co	Williams & Clark Fertilizer Co	New York, N. Y., and Boston, Mass.
1081	1081 King Phillip Alkaline Guano	Clark's Cove Fertilizer Co	New York, N. Y., or Boston, Mass.
1095	1095 Nobsque Guano	Pacific Guano Co	Boston, Mass.
1083	Original Bay State Bone Superphosphate	Henry F. Tucker	3
1072	1072 Quinnipiae Market Garden Manure	The Quinniplac Co New York, N. Y., Boston, Mass.	New York, N. Y., Boston, Mass.
1073	" Phosphate	;	;
1074	" Potato Manure	,, ,,	",
1075	" Seeding Down Manure	., ,, ,,	"

DISCRIPTIVE LIST OF FERTILIZERS LICENSED AND ANALYZED 1894.

Place of Business.	New York, N. Y., and Boston, Mass.	Bowdoinham, Me.	Boston, Mass.	New York, N. Y.	Bowdoinham, Me.	Boston, Mass.	;	** 99	. ,	33
Manufacturer.	Williams & Clark Fertilizer Co	Sagadahoc Fertilizer Co	Paeific Guano Co	E. Frank Coe Co	Sagadahoc Fertilizer Co	Standard Fertilizer Co	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	27 29 29	Bowker Fertilizer Co	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,
Brand.	1091 Royal Bone Phosphate Williams & Clark Fertilizer Co New York, N. Y., and Boston, Mass.	1120 Sagadahoc Superphosphate	1095 Soluble Pacific Guano Boston, Mass.	1101 Special Potato Fertilizer	Special Potato Fertilizer	1078 Standard A. Brand (Seeding) Boston, Mass.	" Fertilizer	" Guano	1113 Stockbridge Corn, Grain and Fodder Corn Manure Bowker Fertilizer Co	" Potato and Vegetable Manure
Station Station.	1001	1120	1095	1101	1121	1078	1076	1077	1113	1112

ANALYSES OF MANUFACTURERS' SAMPLES, 1894.

Brand. Brandlev's Complete Manure for Popare. Brandlev's Complete Manure for Popare.	CANALISES OF MANUFACTURERS SAMPLES, 1034.	Nitrogen. Phosphoric Acid. Potash.	Moisture. Se Guaranteed. Se Guaranteed. Mailable. Available. Available. Available. Pound. Guaranteed. Found. Available. Available. Available. Available. Available. Se Guaranteed. Se Guaranteed.		re	ard grade) 9.99 1.73 1.50 6.88 2.48 2.70 9.36 8.00 12.06 1.33 1.35 1098			9.48 2.33 1.25 7.18 2.55 1.89 9.73 8.00 11.62 10.00 2.59 2.00 1082		and 5.06 1.79 1.50 6.40 7.19 6.40 5.00 13.59 12.00 2.21 2.00 1119	c		re	7. 11.91 10.00 1.16 1.00 .75 4.09 3.75 4.07 7.84 8.00 11.91 10.00 1.16 1.00 1118	See
Brand. Tobacco) Maperphos. (St. G. C.	SAMPLE			7.85 1.65	8.70 1.56	88 2.48	8.10 1.57	7.38 2.34	7.18 2.55	5.32,2.51	6.40	5.27 3.01	7.36 1.87	3.79 2.54	8	
Americus Phosphate	TURERS	itrogen.			2.50	1.50	3.00	36 2.25		1.50		1.50	60 2.50	2.50	92.	
Americus Phosphate	IANUFAC	Ä		32	12	66			48		90	24	90			
	WALISES OF		Brand.	Americus Phosphate		Ammoniated Bone Superphos. (Standard grade)	Bay State Fertilizer	Bay State Fertilizer, G. G	Bay State Fertilizer, Seeding Down	Bowker's Amm. Dissolved Bone			Hill and Drill Phosphate		Brudlay's Complete Munne for Detects and Verse	Diagraphy S Complete Manufe 101 Foldioes and Vege

ANALYSES OF MANUFACTURERS' SAMPLES, 1894.

		Nitrogen on the state of the st	iteed.		1 010	Phosphoric	Die		rteed.	Pot	Potash.	00. 061.
Diana.	Moist	Found	Guarat	Soluble	Revert Insolul	lslisv A bano I	slisvA isisuĐ	Total. Found	Total. Guarat	Found	Guarar	Stati Janu K
	=	200	- %	0%	% %	%	%	%	%	%	200	
	10.40	2.06	2.00	5.562.	2.02 7.29	7.58	\$ 5.00	14.87	10.00	1.89	2.00	1071
	9.22	5.69	3.00	5.69 2.	02 2.21	17.71	1 5.00	9.92	8.00	5.82	5.00	1069
	14.16	2.76	2.00	8.51 2.	76. 00	10.91	1 5.00	11.48	10.00	2.47	2.00	1068
	14.47	2.16	2.05	8.831	64 .97	10.47	7 8.00	11.44	10.00	3.21	3.00	1093
	8.94	1.65	1.65	6.25 2.	89 2.39	9.14	4 5.00	11.53	10.00	2.23	3.00	1094
	12.25	2.39	2.05	7.38 2.	2.51 1.92	9.89	9 9.00	11.81	11.00	2.71	2.00	1092
Columbian Brand Amm. Bone Superphos	8.92	1.33	1.00	7.39 2.	2.18 2.88	6	57 9.00	12.45		1.92	1.85	1102
Concentrated Phosphate for Potatoes	9.74	4.00	4.00	7.16 2.	24 .51	6	40 10.00	9.91	12.00	7.24	00.0	1084
	12.84	2.50	2.00	6.05 2.	2.49 1.91	∞i	54 10.00	10.45	11.00	2.27	1.60	1107
New Rival Amm. Superphos	13.79	2.08	1.20	7.05 2.	7.05 2.31 1.42	9.36	6 10.00	10.78	11.00	2.04	1.60	1109
Potato, Hop and Tobacco Phosphate	13.31	3.03	2.00	6.54 2.15 1	15 1.48	8.69	9 10.00	10.17	11.00	3.45	3.25	1108
Superior Rye and Oats Fertilizer	13.61	1.91	.83	5.25 1.	92 1.24	7.17	2 8.00	8.41	9.00	2.37	2.00	1110
	14.64	2.21	2.50	8.74	8.74 1.57 1.10	10.31	1 9.00	11.41	11.00	3.16	3.00	1086

ANALYSES OF MANUFACTURERS' SAMPLES, 1894.

1 -	Station Number.	1087	1085	1122	1124	1123	1125	1126	1097	1104	1103	1106	1105	1099
Potash.	% Guaranteed.	2.00	2.00	3.00	:		2.00	3.00	1.35	2.00	4.00	2.00	4.00	1.85
Pot	% Found.	2.27	2.74	4.90	:	86.	1.63	3.32	1.79	3.43	4.72	2.15	5.71	2.01
	S Guaranteed.	12.00	10.00	11.00	:		11.00	11.00		8.00	8.00	11.00	8.00	_
	Total. Found.	11.27	11.76	6.29	19.27	4.96	15.75	16.21	13.89	9.94	12.20	15.07	10.72	11.80
Acid.	Available. Guaranteed.	8.00	8.00	1.00	:	:	9.50	9.50	9.00	8.00	8.00	11.00	8.00	9.00
Phosphoric Acid.	* Available. Found	8.94	9.87	2.77	:	:	11.50	10.22	10.05	9.30	9.94	10.99	10.04	99.6
Pho	% Insoluble.	2.33	68.1	3.52	:	4.07	4.25	5.99	3.84	.74	2.26	F.08	89	2.14
	% Reverted.	2.86	2.35	.53	:	68.	8.26^{+}	7.19	3.01	5.36	9.25	88.9	1.90	2.59
	% Soluble.	6.08	7.52	1.241	:		3.24	3.03	7.04	3.84	-69	4.11	5.14 4.90	7.07 2.59
gen.	% Guaranteed.	1.50	2.50	2.00	:	:	2.50	2.50	1.00	3.00	08.	:	2.00	2.00
Nitrogen.	% Found.	1.27	2.36	1.84	3.11	2.44	2.56	2.33	.91	3.06	1.10	:	2.35	2.11
-	Moisture.	12.71	12.64	8.42	10.35	21.50	8.98	8.97	10.61	13.59	13.78	8.70	9.78	9.06
	Brand.	1087 Cumberland Seeding Down Fertilizer	"Superphosphate	1122 Dirigo Fertilizer	124 Extra Raw Bone	123 Farmer's Friend Manure	125 Farrar's Fertilizer	" Potato Fertilizer	1097 Grass and Grain Fertilizer	1004 Great Eastern General Corn Phosphate	" " Fertilizer	" Grass and Oats Phosphate	" Potato Manure	1099 High Grade Amm. Bone Superphos
	Station Number.	1087	1085	1122	1124	1123	1125	1126	1097	1104	1103	1106	1105	1099

MALYSES OF MANUFACTURERS' SAMPLES, 1894.

Head Crade Potato Pertilizar Brand. Second Brand. Seco			Nitrogen.	zen.		Ph	Phosphoric Acid.	c Acid.			Pol	Potash.		
bos. 9.61 3.97 4.50 7.10 2.50 4.5 9.60 7.00 10.05 8.00 7.26 7.00 bos. 9.81 2.28 1.40 6.52 1.74 1.05 8.26 6.50 9.31 8.00 3.66 3.00 bos. 9.30 2.01 2.00 6.77 2.68 2.24 8.91 9.00 11.35 10.00 2.25 2.00 bos. 9.39 2.01 2.00 6.77 2.68 2.25 9.45 9.00 11.35 10.00 2.25 2.00 corrections and the statement of the statement o	Brand.	Moisture.	% Found.	% Guaranteed.					Total. Schnid.		% Found.	% Guaranteed.		
ano la	Grade Potato Fertilizer	8.13	-28		5.04 1	લં		F8.00		:	6.45	00.9	1111	
nano 11.52 1.73 1.50 6.52 1.74 1.05 8.26 6.50 9.31 8.00 9.31 8.00 3.66 3.00 Superphos. 9.30 2.01 2.00 6.77 2.65 2.44 8.91 9.00 11.35 10.00 2.25 2.00 en Manure 9.79 3.89 4.00 7.73 2.05 6.43 8.00 10.49 10.00 2.25 2.00 e 12.26 2.74 3.00 7.91 4.71 9.88 9.00 10.49 10.00 2.72 2.00 e 9.34 2.71 3.00 7.91 4.71 9.88 9.00 10.49 10.00 2.72 2.00 e 9.34 2.71 3.00 7.91 4.71 1.71 9.88 9.00 10.49 10.00 2.72 2.00 e 9.34 2.71 3.00 6.55 2.87 2.26 7.67 6.00 9.93 </td <td></td> <td>9.61</td> <td></td> <td>20</td> <td>7.10^{1}_{2}</td> <td>02</td> <td>6</td> <td>7.00</td> <td>10.05</td> <td>8.00</td> <td>7.26</td> <td>7.00</td> <td>1088</td> <td></td>		9.61		20	7.10^{1}_{2}	02	6	7.00	10.05	8.00	7.26	7.00	1088	
Superphos. 12.24 1.23 1.40 6.23 2.65 2.44 8.91 9.00 11.35 10.00 2.25 2.00 cm Manure. 9.79 3.89 4.00 7.38 2.05 6.5 9.43 8.00 10.08 9.00 7.47 7.00 cen Manure. 9.34 2.71 3.00 6.55 1.82 2.26 7.67 6.00 9.93 7.00 6.55 1.82 2.26 7.67 6.00 9.93 7.00 6.59 2.87 2.26 7.67 6.00 9.93 7.00 6.59 2.87 2.26 7.67 6.00 9.93 7.00 6.59 2.87 2.26 7.67 6.00 9.93 7.00 6.59 2.87 2.26 7.67 6.00 9.93 7.00 6.59 2.87 2.26 7.67 6.00 9.93 7.00 6.59 2.87 2.26 7.67 6.00 9.93 7.00 6.50 2.20 7.00 7.00 7.00 7.00 7.00 7.00 7.0		11.52	1.79	20	6.52_{11}^{1}	-	œ.	02.9			3.66		1081	
Superphos. 9.30 2.01 2.00 6.77 2.68 2.25 9.45 9.00 11.70 9.00 2.20 3.00 en Manure 9.79 3.89 4.00 7.38 2.05 65 9.45 9.00 10.08 9.00 7.47 7.00 e 9.34 2.71 3.00 7.911.471.11 9.38 9.00 10.49 10.00 2.72 2.00 n Manure 12.86 1.28 1.20 6.55 1.82 2.26 7.67 6.00 9.93 7.00 6.80 5.00 itc 12.86 1.28 1.20 6.59 2.87 2.26 9.46 9.00 11.72 10.00 2.26 2.00 itc 12.86 1.28 1.26 1.25 6.20 3.112.23 9.31 7.00 11.54 8.00 2.26 9.00 itc 12.58 2.75 5.63 2.30 1.64 7.93 9.57 9.57 9.57 2.75 9.00 itc 12.30 2.37 2.25 7.33 2.42 1.85 9.56 9.50 11.60 10.00 2.61 2.00	sque Guano	12.24	1.23	1.40	23	6S 2.		9.00	11.35	10.00	2.55		1096	
en Manure 9.79 3.89 4.00 7.38 2.05 6.5 9.43 8.00 10.08 9.00 7.47 7.00 1.0.0	inal Bay State Bone Superphos			2.00	11	ci.	6	9.00	11.70	9.00	2.20	3.00	1083	
12.26 2.74 3.00 7.911.471.11 9.38 9.00 10.49 10.00 2.72 2.00 1 n Manure	mipiac Market Garden Manure	9.79	68		7.38,2			8.00	10.08	00.6	7.47	7.00	1072	
10.00 12.86 1.21 1.20 1.25	,				7.91	_	6	9.00	10.49	10.00	2.72	2.00	1073	
n Manure 12.86 1.23 1.00 6.59 2.87 2.26 9.46 9.00 11.72 10.00 2.26 2.00 1 146 12.53 1.26 1.25 6.20 3.11 2.23 9.31 7.00 11.54 8.00 2.26 9.00 1 146 15.58 2.75 2.75 5.63 2.30 1.64 7.93 9.57 9.57 2.67 2.75 1.38 2.42 1.85 9.75 8.50 11.60 10.00 2.61 2.00 1 1 12.80 8.88 1.81 1.75 7.19 2.17 2.53 9.36 9.00 11.89 2.38 3.50		9.34	-11		5.851	લં		00.9	9.93	7.00	5.80		1074	
tte		12.86	1.23		6.59_{2}^{1}	.87/2.	6	9.00	11.72	10.00	2.26	5.00	1075	
tte	al Bone Phosphate	12.53	1.26		20	11 2.		7.00	11.54	8.00	2.26	9.00	1601	
12.30 2.37 2.25 7.33 2.42 1.85 9.75 8.50 11.60 10.00 2.61 2.00 2.00 8.88 1.81 1.75 7.19 2.17 2.53 9.36 9.00 11.89 2.38 3.50	dahoe Superphosphate			2.75	_63	30 1				:		2.75	1120	
8.88 1.81 1.75 7.19 2.17 2.53 9.36 9.00 11.89 2.38 3.50	ble Pacific Guano	12.30	37	25	7.33 2	42 1.	9.		11.60	10.00	2.61	5.00	1095	
	dal Potato Fertilizer			1.75	7.19^{1}_{2}	.17 2.5		9.00		:	2.38	20	1101	

ANALYSES OF MANUFACTURERS' SAMPLES, 1894.

Nitrogen. Nitrogen. Notrogen. Notrogen. 13.87 Phosphoric Acid. Potal. Soluble. Available. Soluble. Available. Avail		Station Station Number.	1121	1078	1076	1077	1113	1110
Nitrogen. Nitrogen. 13.87 Phosphoric Acid. 12.62 12.63 12.63 12.63 Phosphoric Acid. Phosphoric Acid. Phosphoric Acid. Soluble. Available. Available. Available. Available. Available. Available. Potal. Soluble. Available. Potal. Soluble. Available. Potal. Soluble. Available. Potal. Soluble. Potal. Soluble. Available. Potal. Soluble. Available. Potal. Soluble. Available. Potal. Soluble. Available. Soluble. Soluble. Available. Soluble. Soluble. Available. Soluble. Soluble. Soluble. Soluble. Soluble. Available. Soluble. S	ash.	% Guaranteed.	00.9	2.00	2.00	3.00	4.00	4 00
Nitrogen. 13.87 12.62 12.63 12.63 12.63 12.64 12.65 12.60 12.65 12.60 12.65 12.60 12.65 12.60 12.65 12.60 12.65 12.60 12.65 12.60 12.65 12.60 12.65 13.85 13.95 14.85 15.00 11.65 12.60 11.65 12.60 11.65 12.60 11.65 12.60 11.65 12.60 11.65 12.60 11.65 12.60 12.60 12.60 13.85 13.60 14.85 15.60 16.60 16.60 16.62 16.60 16.62 16.60 16.62 16.60	Pot	% Found.	5.74	2.37	2.67	3.69	5.23	62 0
Nitrogen. Noitrogen. 13.87 12.02 12.03 12.04 12.05 13.05	***************************************	Guaranteed.	======================================	12.00	10.00	8.00	10.00	00 0
Nitrogen. Nitrogen. 13.87 12.62 12.63 2.53 3.00 4.87 2.10 12.63 12.73 2.25 3.00 12.46 2.44 2.00 12.46 2.44 2.00 12.46 2.63 3.00 12.46 2.63 3.00 12.46 2.63 3.00 12.46 3.00 12.46 3.00 12.46 3.00 12.40 3.00		Total. Found.	8.57	11.68	11.96	9.70	10.62	10 95
Nitrogen. 13.87 12.62 12.63 12.63 12.64 12.65 12.65 12.65 12.65 12.65 12.65 12.65 12.65 12.65 13.85 13.87 14.87 11.32 16.65	Acid.	Available. Guaranteed.	8.57	8.00	8.00	0.00	8.00	000
Nitrogen. 13.87 12.62 12.63 12.63 12.64 12.65 12.65 12.65 12.65 12.65 12.65 12.65 12.65 12.65 13.85 13.87 14.87 11.32 16.65	sphoric		6.97	9.45	00.01	8.61	7.93	1
Nitrogen. 13.87 (Juaranteed. 12.62 1.27 1.50 (Juaranteed. 17.75 1.50 9.38 3.21 3.25 9.38	Phos	% Insoluble.	09.1	2.26		1.09	8.69	0.0
Nitrogen. 13.87 (Juaranteed. 12.62 1.27 1.50 (Juaranteed. 17.75 1.50 9.38 3.21 3.25 9.38		% Reverted.	2.10	2.72	2.64	2.05	1.62	1 69
Moisture. 12. 62 1.37 2.53 11. 32 1.37 2.44 11. 32 1.75		% Soluble.	4.87	6.70	7.36	6.59	6.31	00 0
Moisture. 12. 62 1.37 2.53 11. 32 1.37 2.44 11. 32 1.75	gen.	S Guaranteed.	3.00	1.50	2.00	1.50		200
.9 111 2. 6. 6. 7. 8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Nitro	E Bound.	2.53	1.97	44	1.75		07 0
pecial Potato Fertilizer tandard A Brand (Seeding) andard Fertilizer duano duano cockbridge's Corn, Grain and Fodder Corn Manure		Moisture.	13.87	12.62	12.46	11.32	9.38	10 07
		Brand.	pecial Potato Fertilizer	078 Standard A Brand (Seeding)	tandard Fertilizer		113 Stockbridge's Corn, Grain and Fodder Corn Manure.	came of detector of the order

MAINE STATE COLLEGE,
ORONO, ME., Feb. 15, 1894.



